

Appendix 8-B

Recommendations for Elements of a Wetland Regulatory Ordinance

Please note: Appendix 8-B is a complement to Chapter 8 and its other appendices. Local governments should not adapt suggested language contained in Appendix 8-B to their critical areas ordinances without also carefully reviewing all of Chapter 8 and its supporting appendices.

This appendix contains specific recommendations for language that can be used in local critical area regulations to protect wetlands. The recommendations incorporate the relevant best available science from Volume 1 to protect wetland functions and values. While other language may also adequately include the best available science, the language recommended in this appendix represents the State of Washington's best attempt to provide a reasonable, science-based approach to wetlands regulation.

The language below is provided in a format similar to that found in many local critical area ordinances. This appendix does not include the more general provisions typically found in critical area regulations that relate to all critical areas. These can be found in Appendix A of the *Critical Areas Assistance Handbook* published by the Washington State Department of Community, Trade and Economic Development in November 2003 (http://www.cted.wa.gov/uploads/CA_Handbook.pdf). This appendix (Appendix 8-B) revises the wetland specific provisions in Appendix A of the *Critical Areas Assistance Handbook*.

Appendix 8-B should be used in conjunction with Appendices 8-C through 8-F, which contain guidance on wetland mitigation ratios and buffer widths (and supporting rationale), as well as with Chapter 8, which includes additional discussion on developing the necessary elements of a wetland regulatory ordinance.

This appendix includes:

WETLAND PROVISIONS

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Wetland Provisions

Designating, Defining, Identifying, and Mapping Wetlands

A. **Designating, Defining and Identifying Wetlands.** Wetlands are those areas, identified in accordance with the *Washington State Wetlands Identification and Delineation Manual* (1997), that meet the following definition: “Wetland” or “wetlands” means areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands.

All areas within the [city/county] meeting the wetland definition criteria in the *Wetlands Identification and Delineation Manual*, regardless of whether these areas have previously been identified or mapped, are hereby designated critical areas and are subject to the provisions of this Title.

B. **Mapping.** The approximate location and extent of wetlands are shown on the adopted critical area maps. The following critical area maps, including [locally adopted maps or the National Wetlands Inventory] are hereby adopted. Additionally, soil maps produced by U.S. Department of Agriculture Natural Resources Conservation Service may be useful in helping to identify potential wetland areas. These maps are to be used as a guide for the [city/county], project applicants, and/or property owners to identify potential wetland areas that may be subject to the provisions of this Title.

It is the actual presence of wetland on a parcel, as delineated by the requirements of the *Washington State Wetlands Identification and Delineation Manual* (Ecology Publication #96-94, 1997), that triggers the requirements of this Title, whether or not the wetland is identified on the adopted maps. The exact location of a wetland’s boundary shall be determined through the performance of a field delineation by a qualified wetlands professional, applying the *Washington State Wetlands Identification and Delineation Manual* (Ecology Publication #96-94, 1997) as required by RCW 36.70A.175.

Regulated Activities

The following activities are regulated if they occur in a regulated wetland or its buffer:

- A. The removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind;
- B. The dumping, discharging, or filling with any material;
- C. The draining, flooding, or disturbing of the water level or water table;
- D. The driving of pilings;
- E. The placing of obstructions;
- F. The construction, reconstruction, demolition, or expansion of any structure;
- G. The destruction or alteration of wetland vegetation through clearing, harvesting, shading, intentional burning, or planting of vegetation that would alter the character of a regulated wetland, provided that these activities are not part of a forest practice governed under Chapter 76.09 RCW and its rules; or
- H. Activities that result in:
 - 1. a significant change of water temperature;
 - 2. a significant change of physical or chemical characteristics of the sources of water to the wetland;
 - 3. a significant change in the quantity, timing or duration of the water entering the wetland; or,
 - 4. the introduction of pollutants.

Activities Allowed in Wetlands

The activities listed below are allowed in wetlands in addition to those activities listed in the provisions established in Section [#] *Allowed Activities* in this Title. These activities do not require submission of a critical area report, except where such activities result in a loss to the functions and values of a wetland or wetland buffer. These activities include:

- A. Conservation or preservation of soil, water, vegetation, fish, shellfish, and other wildlife that does not entail changing the structure or functions of the existing wetland;
- B. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil,

planting of crops, chemical applications, or alteration of the wetland by changing existing topography, water conditions, or water sources;

C. Drilling for utilities under a wetland. Placing utility corridors under a wetland by drilling beneath the wetland, with entrance/exit portals located completely outside of the wetland boundary. Drilling beneath the wetland is allowed provided that the drilling does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column. Specific studies by a hydrologist are necessary to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column is disturbed; or

D. Enhancement of a wetland through the removal of non-native invasive plant species. Removal of invasive plant species shall be restricted to hand removal. All removed plant material shall be taken away from the site and appropriately disposed of. Revegetation with appropriate native species at natural densities is allowed in conjunction with removal of invasive plant species.

Wetland Ratings

A. Wetlands shall be rated according to the Washington State Department of Ecology wetland rating system found in the *Washington State Wetlands Rating System* documents (Western Washington, Ecology Publication #04-06-014; Eastern Washington, Ecology Publication #02-06-019) or as revised by Ecology. Wetland rating categories shall be applied as the wetland exists at the time of the adoption of this Title or as it exists at the time of an associated permit application. Wetland rating categories shall not change due to illegal modifications.

Note: Choose the appropriate rating system from the eastern/western Washington methods from Ecology.

Wetland Rating Categories – Eastern Washington

1. **Category I.** Category I wetlands are those that (1) represent a unique or rare wetland type; or (2) are sensitive to disturbance; or (3) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or (4) provide a very high level of functions.
2. **Category II.** Category II wetlands are (1) forested wetlands in the channel migration zone of rivers, or (2) mature forested wetlands containing fast growing trees, or (3) vernal pools present within a mosaic of other wetlands, or (4) wetlands with a moderately high level of functions. These wetlands are difficult, though not impossible, to replace, and provide high levels of some functions. These wetlands occur more commonly than Category I wetlands, but still need a high level of protection.

3. **Category III.** Category III wetlands are (1) vernal pools that are isolated, and (2) wetlands with a moderate level of functions (scores between 30 and 50 points). Wetlands scoring between 30 and 50 points generally have been disturbed in some ways, and are often smaller, less diverse and/or more isolated in the landscape than Category II wetlands. They may not need as much protection as Category I and II wetlands.
4. **Category IV.** Category IV wetlands have the lowest levels of functions (scores less than 30 points) and are often heavily disturbed. These are wetlands that we should be able to replace, and in some cases be able to improve. However, experience has shown that replacement cannot be guaranteed in any specific case. These wetlands do provide some important functions and should be protected to some degree.

Wetland Rating Categories – Western Washington

1. **Category I.** Category I wetlands are: (1) relatively undisturbed estuarine wetlands larger than 1 acre; (2) wetlands that are identified by scientists of the Washington Natural Heritage Program/DNR as high quality wetlands; (3) bogs larger than ½ acre; (4) mature and old growth forested wetlands larger than 1 acre; (5) wetlands in coastal lagoons; and (6) wetlands that perform many functions well.

These wetlands are those that: (1) represent a unique or rare wetland type; or (2) are more sensitive to disturbance than most wetlands; or (3) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or (4) provide a high level of functions.

2. **Category II.** Category II wetlands are: (1) estuarine wetlands smaller than 1 acre, or disturbed estuarine wetlands larger than 1 acre; (2) a wetland identified by the Washington State Department of Natural Resources as containing “sensitive” plant species; (3) a bog between ¼ and ½ acre in size; (4) an interdunal wetland larger than 1 acre; or (5) wetlands with a moderately high level of functions.
3. **Category III.** Category III wetlands are (1) wetlands with a moderate level of functions (scores between 30 and 50 points) and (2) interdunal wetlands between 0.1 and 1 acre in size. Wetlands scoring between 30 and 50 points generally have been disturbed in some ways, and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.
4. **Category IV.** Category IV wetlands have the lowest levels of functions (scores less than 30 points) and are often heavily disturbed. These are wetlands that we should be able to replace, and in some cases be able to improve. However, experience has shown that replacement cannot be

guaranteed in any specific case. These wetlands may provide some important functions, and should be protected to some degree.

Standards

General Requirements

A. Activities and uses shall be prohibited in wetlands and wetland buffers, except as provided for in this Title.

B. **Category I Wetlands.** Activities and uses shall be prohibited from Category I wetlands, except as provided for in the *Public Agency and Utility Exception* (Section [#]), *Reasonable Use Exception* (Section [#]), and *Variance* (Section [#]) elements of this Title.

C. **Category II and III Wetlands.** For Category II and III wetlands, the following standards shall apply:

1. Water dependent activities may be allowed where there are no practicable alternatives that would have a less adverse impact on the wetland, its buffers and other critical areas, and where the use meets the intent of this Title.
2. Where non-water-dependent activities are proposed, it is presumed that an alternative development location exists; activities and uses shall be prohibited unless the applicant can demonstrate that:
 - a. The basic project purpose cannot reasonably be accomplished on another site or sites in the general region while still successfully avoiding or resulting in less adverse impact on a wetland; and
 - b. All on-site alternative designs that would avoid or result in less adverse impact on a wetland or its buffer, such as a reduction in the size, scope, configuration or density of the project, are not feasible.

Full compensation for the loss of acreage and functions of wetland and buffers shall be provided under the terms established under the *Mitigation* section in this Title.

D. **Category IV Wetlands.** Activities and uses that result in unavoidable impacts may be permitted in Category IV wetlands and associated buffers in accordance with an approved critical area report and compensatory mitigation plan, and only if the proposed activity is the only reasonable alternative that will accomplish the applicant's objectives. Full compensation for the loss of acreage and functions of wetland and buffers shall be provided under the terms established under the *Mitigation* section in this Title.

Wetland Critical Area Report Criteria

A. Preparation by a Qualified Professional. A critical area report for wetlands shall be prepared by a qualified professional who is a certified Professional Wetland Scientist or a non-certified professional wetland scientist with a minimum of five (5) years experience in the field of wetland science with experience preparing wetland reports.

See Appendix 8-G for further information on what constitutes a qualified wetlands specialist.

B. Minimum Standards for Wetland Reports. The written report and the accompanying plan sheets shall contain the following information, at a minimum:

1. The written report shall include at a minimum:
 - a. The name and contact information of the applicant, the name, qualifications, and contact information for the primary author(s) of the Wetland Critical Area report, a description of the proposal, and identification of all the local, state, and/or federal wetland related permit(s) required for the project, and a vicinity map for the project;
 - b. A statement specifying the accuracy of the report, and all assumptions made and relied upon;
 - c. Documentation of any fieldwork performed on the site, including field data sheets for delineations, functional assessments, baseline hydrologic data, etc.;
 - d. A description of the methodologies used to conduct the wetland delineations, functional assessments, or impact analyses including references;
 - e. Identification and characterization of all critical areas, wetlands, water bodies, shorelines, floodplains and buffers on or adjacent to the proposed project area. For areas off-site of the project site, estimate conditions within 300 feet of the project boundaries using the best available information;
 - f. For each wetland identified on-site and within 300 feet of the project site, provide the wetland rating per the provisions of this Title, required buffers, HGM classification, wetland acreage based on a professional survey from the field delineation (acreages for on-site portion and entire wetland area including off-site portions), Cowardin classification of vegetation communities including vegetation characterization, habitat elements, soil conditions based on site assessment and/or soil survey information, and to the extent

- possible, hydrologic information such as location and condition of inlet/outlets (if they can be legally accessed), estimated water depths within the wetland, estimated hydroperiod patterns based on visual cues (e.g., algal mats, drift lines, flood debris, etc.). Provide acreage estimates, classifications, and ratings based on entire wetland complexes, not only the portion present on the proposed project site;
- g. A description of the proposed actions including an estimation of acreages of impacts to wetland and buffers based on the field delineation and survey, and an analysis of site development alternatives including a no development alternative;
 - h. An assessment of the probable cumulative impacts to the wetlands and buffers resulting from the proposed development;
 - i. A description of reasonable efforts made to apply mitigation sequencing pursuant to Mitigation Sequencing to avoid, minimize, and mitigate impacts to critical areas;
 - j. A discussion of measures, including avoidance, minimization, and mitigation, proposed to preserve existing wetlands and restore any wetlands that were degraded prior to the current proposed land use activity;
 - k. A habitat and native vegetation conservation strategy that addresses methods to protect and enhance on-site habitat and wetland functions, and;
 - l. Evaluation of functions for the wetland and adjacent buffer using a functions assessment method recognized by local or state agency staff and including the reference for the method and all data sheets.
2. A copy of the site plan sheet(s) for the project must be included with the written report and must include, at a minimum:
- a. Maps (to scale) depicting delineated and surveyed wetland and required buffers on-site, including buffers for off-site critical areas that extend onto the project site; the development proposal; other critical areas; grading and clearing limits; areas of proposed impacts to wetland and/or buffer (include square footage estimates);
 - b. A depiction of the proposed stormwater management facilities and outlets (to scale) for the development, including estimated areas of intrusion into the buffers of any critical areas. The written report shall contain a discussion of the potential impacts to the wetland(s) associated with anticipated hydroperiod alterations from the project.

C. Compensatory Mitigation Reports. When a project involves wetland and/or buffer impacts, a compensatory mitigation report shall be required, meeting the following minimum standards:

1. **Preparation by Qualified Professional(s).** A compensatory mitigation report for wetland or buffer impacts shall be prepared by one or more qualified professional(s) including someone who is a certified Professional Wetland Scientist or a non-certified professional wetland scientist: either of them must have a minimum of five (5) years experience designing compensatory mitigation designs which have been installed and monitored for a minimum of 2 years to verify success. In addition, the design team may include civil engineers, landscape architects or landscape designers depending upon the complexity of the project.
2. **A Wetland Critical Area Report** must accompany or be included in the compensatory mitigation report and include the minimum parameters described in Section [#] of this Title (above).
3. **Compensatory Mitigation Report.** Must include a written report and plan sheets that must contain, at a minimum, the following elements. Full guidance can be found in the *Draft Guidance on Wetlands Mitigation in Washington State*, Part 2, 2004 (Washington State Department of Ecology, U.S. Army Corps of Engineers Seattle District, and U.S. Environmental Protection Agency Region 10; Ecology publication number 04-06-013B).
 - a. The written report must contain, at a minimum:
 - i. The name and contact information of the applicant, the name, qualifications, and contact information for the primary author(s) of the Compensatory Mitigation Report, a description of the proposal, a summary of the impacts and proposed compensation concept, and identification of all the local, state, and/or federal wetland related permit(s) required for the project, plus a vicinity map for the project;
 - ii. Description of the existing wetland and buffer areas proposed to be impacted including: acreages (or square footage) based on professional surveys of the delineations; Cowardin classifications including dominant vegetation community types (for upland and wetland habitats); the results of a functional assessment for the entire wetland and the portions proposed to be impacted; wetland rating based on the provisions of this Title;
 - iii. An assessment of the potential changes in wetland hydroperiod from the proposed project and how the design has been modified to avoid, minimize or reduce adverse impacts to the wetland hydroperiod;

- iv. A description of the proposed conceptual compensation actions for wetland and upland areas. Describe future vegetation community types for years 1, 3, 5, 10 and 25 post-installation including the succession of vegetation community types and dominants expected. Describe the successional sequence of expected changes in hydroperiod for the compensation site(s) for the same time periods as vegetation success. Describe the change in habitat characteristics expected over the same 25 year time period.
 - v. An assessment of existing conditions in the zone of the proposed compensation, including: vegetation community structure and composition, existing hydroperiod, existing soil conditions, existing habitat functions. Estimate future conditions in this location if the compensation actions are NOT undertaken (i.e, how would this site progress through natural succession).
 - vi. The field data collected to document existing conditions and on which future condition assumptions are based for hydroperiod (e.g., existing hydroperiod based on piezometer data, staff/crest gage data, hydrologic modeling, visual observations, etc.) and soils (e.g., soil pit data - hand dug or mechanically trenched, soil boring data; do not rely upon soil survey data for establishing existing conditions);
 - vii. A discussion of ongoing management practices that will protect wetlands after the project site has been developed, including proposed monitoring and maintenance programs;
 - viii. A bond estimate for the entire compensatory mitigation including the following elements: site preparation, plant materials, construction materials, installation oversight, maintenance twice/year for up to 5 years, annual monitoring field work and reporting, and contingency actions for a maximum of the total required number of years for monitoring;
 - ix. Proof of establishment of Notice on Title for the wetlands and buffers on the project site, including the compensatory mitigation areas.
- b. The scaled plan sheets for the compensatory mitigation must contain, at a minimum:
- i. Existing wetland and buffer surveyed edges, proposed areas of wetland and/or buffer impacts, location of proposed wetland and/or buffer compensation actions;

- ii. Existing topography, ground-proofed, at two-foot contour intervals in the zone of the proposed compensation actions if any grading activity is proposed to create the compensation area(s). Indicate existing cross-sections of on-site wetland areas that are proposed to be impacted. Provide cross-section(s) (estimated one-foot intervals) for the proposed areas of wetland or buffer compensation;
- iii. Surface and subsurface hydrologic conditions including an analysis of existing and proposed hydrologic regimes for enhanced, created, or restored compensatory mitigation areas. Illustrate how data for existing hydrologic conditions were utilized to inform the estimates of future hydrologic conditions;
- iv. Proposed conditions expected from the proposed actions on site including future HGM types, vegetation community types by dominant species (wetland and upland), and future hydrologic regimes;
- v. Required wetland buffers for existing wetlands and proposed compensation areas. Identify any zones where buffers are proposed to be reduced or enlarged outside of the standards identified in this Title;
- vi. A plant schedule including all species by proposed community type and hydrologic regime, size and type of plant material to be installed, spacing of plants, “typical” clustering patterns, total number of each species by community type, timing of installation;
- vii. Performance standards (measurable standards reflective of years post-installation) for upland and wetland communities, monitoring schedule, and maintenance schedule and actions by each bi-annum.

D. Additional Information. When appropriate, the [director] may also require the critical area report to include an evaluation by the state Department of Ecology or an independent qualified expert regarding the applicant's analysis and the effectiveness of any proposed mitigating measures or programs, and to include any recommendations as appropriate.

- 1. If the development proposal site contains or is within a wetland area, the applicant shall submit an affidavit, which declares whether the applicant has knowledge of any illegal alteration to any or all wetlands on the proposed site and whether the applicant previously had been found in violation of this ordinance. If the applicant has been found previously in violation, the applicant shall declare whether such violation has been corrected to the satisfaction of the jurisdiction.

2. The [director] shall determine if the mitigation and monitoring plans and bonding measures proposed by the applicant are sufficient to protect the public health, safety, and welfare, consistent with the goals, purposes, objectives and requirements of this ordinance.

Compensatory Mitigation Requirements

A. Compensatory mitigation for alterations to wetlands shall achieve equivalent or greater biologic functions. Compensatory mitigation plans shall be consistent with the *Draft Guidance on Wetlands Mitigation in Washington State*, Part 2, 2004 (Washington State Department of Ecology, U.S. Army Corps of Engineers Seattle District, and U.S. Environmental Protection Agency Region 10; Ecology publication number 04-06-013B, or as revised).

B. Mitigation Shall Be Required in the Following Order of Preference:

1. Avoiding the impact altogether by not taking a certain action or parts of an action.
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts.
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
4. Reducing or eliminating the impact over time by preservation and maintenance operations.
5. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments.

C. **Compensation for Lost or Affected Functions.** Compensation shall address the functions affected by the proposed project, with an intention to achieve functional equivalency or improvement of functions. The goal shall be for the compensatory mitigation to provide similar wetland functions as those lost, except when either:

1. The lost wetland provides minimal functions as determined by a site-specific function assessment, and the proposed compensatory mitigation action(s) will provide equal or greater functions or will provide functions shown to be limiting within a watershed through a formal Washington state watershed assessment plan or protocol; or
2. Out of kind replacement of wetland type or functions will best meet watershed goals formally identified by the [city/county], such as replacement of historically diminished wetland types.

D. Preference of Mitigation Actions. Methods to achieve compensation for wetland functions shall be approached in the following order of preference:

1. Restoration (re-establishment and rehabilitation) of wetlands.
2. Creation (Establishment) of wetlands on disturbed upland sites such as those with vegetative cover consisting primarily of non-native introduced species. This should only be attempted when there is an adequate source of water and it can be shown that the surface and subsurface hydrologic regime is conducive for the wetland community that is anticipated in the design.
3. Enhancement of significantly degraded wetlands in combination with restoration or creation. Such enhancement should be part of a mitigation package that includes replacing the impacted area and meeting appropriate ratio requirements.

See Appendices 8-C and 8-D for definitions of the types of compensatory mitigation actions (Restoration, Creation, Enhancement).

E. Type and Location of Mitigation. Unless it is demonstrated that a higher level of ecological functioning would result from an alternate approach, compensatory mitigation for ecological functions shall be either in-kind and on-site, or in-kind and within the same stream reach, subbasin, or drift cell (if estuarine wetlands are impacted). Mitigation actions shall be conducted within the same sub-drainage basin and on the site of the alteration except when all of the following apply:

1. There are no reasonable on-site or in-subdrainage basin opportunities (e.g., on-site options would require elimination of high functioning upland habitat), or on-site and in-subdrainage basin opportunities do not have a high likelihood of success based on a determination of the natural capacity of the site to compensate for the impacts. Considerations should include: anticipated wetland mitigation replacement ratios, buffer conditions and proposed widths, available water to maintain anticipated hydrogeomorphic classes of wetlands when restored, proposed flood storage capacity, potential to mitigate riparian fish and wildlife impacts (such as connectivity);
2. Off-site mitigation has a greater likelihood of providing equal or improved wetland functions than the impacted wetland; and
3. Off-site locations shall be in the same sub-drainage basin unless:
 - a. Established watershed goals for water quality, flood storage or conveyance, habitat, or other wetland functions have been established by the [city/county] and strongly justify location of mitigation at another site; or

- b. Credits from a state certified wetland mitigation bank are used as mitigation and the use of credits is consistent with the terms of the bank's certification.

F. Timing of Compensatory Mitigation. It is preferred that compensation projects be completed prior to activities that will disturb the on-site wetlands. At the least, compensatory mitigation shall be completed immediately following disturbance and prior to use or occupancy of the action or development. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife, and flora.

The [director] may authorize a one-time temporary delay in completing construction or installation of the compensatory mitigation when the applicant provides a written explanation from a qualified wetland professional as to the rationale for the delay. An appropriate rationale would include identification of the environmental conditions that could produce a high probability of failure or significant construction difficulties (for example, project delay lapses past a fisheries window; or plant installation should be delayed until the dormant season to ensure greater survivability of installed materials). The delay shall not create or perpetuate hazardous conditions or environmental damage or degradation, and the delay shall not be injurious to the health, safety, and general welfare of the public. The request for the temporary delay must include a written justification that documents the environmental constraints that preclude implementation of the mitigation plan. The justification must be verified and approved by the [city/county].

G. Mitigation Ratios. [insert acreage ratios; see shaded box below]

See Appendices 8-C and 8-D for recommended mitigation ratios and criteria for increasing or reducing ratios to be used with the *Washington State Wetlands Rating System*. Appendix 8-F provides the rationale for the recommended ratios.

H. Preservation. Impacts to wetlands may be mitigated by preservation of wetland areas when used in combination with other forms of mitigation such as creation, restoration, or enhancement at the preservation site or at a separate location. Preservation may also be used by itself, but more restrictions apply as outlined below.

- 1. **Preservation in combination with other forms of compensation.** Using preservation as compensation is acceptable when done in combination with restoration, creation, or enhancement, provided that a minimum of 1:1 acreage replacement is provided by restoration or creation and the criteria below are met:
 - a. The impact area is small, and/or impacts are to a Category III or IV wetland;
 - b. Preservation of a high quality system occurs in the same Water Resource Inventory Area (WRIA) or watershed basin as the wetland impact;

- c. Preservation sites include buffer areas adequate to protect the habitat and its functions from encroachment and degradation; and
 - d. Mitigation ratios for preservation in combination with other forms of mitigation shall range from 10:1 to 20:1, as determined on a case-by-case basis, depending on the quality of the wetlands being mitigated and the quality of the wetlands being preserved.
2. **Preservation as the sole means of compensation for wetland impacts.** Preservation of at-risk, high-quality habitat may be considered as the sole means of compensation for wetland impacts when all of the following criteria are met:
- a. Preservation is used as a form of compensation only after the standard sequencing of mitigation (avoid, minimize, and then compensate) has been applied;
 - b. Creation, restoration, and enhancement opportunities have also been considered, and preservation is the best mitigation option;
 - c. The impact area is small and/or impacts are to a Category III or IV wetland;
 - d. Preservation of a high quality system occurs in the same Water Resource Inventory Area (WRIA) or a watershed where the wetland impact occurs;
 - e. Preservation sites include buffer areas adequate to protect the habitat and its functions from encroachment and degradation;
 - f. The preservation site is determined to be under imminent threat, specifically, sites with the potential to experience a high rate of undesirable ecological change due to on-site or off-site activities. (“Potential” includes permitted, planned, or likely actions that are not adequately protected under existing regulations [for example, logging of forested wetlands]); and
 - g. The area proposed for preservation is of high quality and critical for the health of the watershed or basin. Some of the following features may be indicative of high quality sites:
 - i. Category I or II wetland rating;
 - ii. Rare wetland type (for example, bogs, mature forested wetlands, estuaries);
 - iii. Habitat for threatened or endangered species;
 - iv. Wetland type that is rare in the area;

- v. Provides biological and/or hydrological connectivity;
- vi. High regional or watershed importance (for example, listed as priority site in watershed plan); and
- vii. Large size with high species diversity (plants and/or animals) and/or high abundance.
- h. Mitigation ratios for preservation as the sole means of mitigation shall generally start at 20:1. Specific ratios should depend upon the significance of the preservation project and the quality of the wetland resources lost.

I. Impacts to Wetland Buffers

This section still needs to be developed. We are interested in any examples of how buffer impacts and mitigation have been addressed in local ordinances.

J. Wetland Mitigation Banks

- 1. Credits from a wetland mitigation bank may be approved for use as compensation for unavoidable impacts to wetlands when:
 - a. The bank is certified under Chapter 173-700 WAC;
 - b. The [director] determines that the wetland mitigation bank provides appropriate compensation for the authorized impacts; and
 - c. The proposed use of credits is consistent with the terms and conditions of the bank's certification.
- 2. Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the bank's certification.
- 3. Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the bank's certification. In some cases, bank service areas may include portions of more than one adjacent drainage basin for specific wetland functions.

Subdivisions

The subdivision and short subdivision of land in wetlands and associated buffers is subject to the following:

- A. Land that is located wholly within a wetland or its buffer may not be subdivided.

B. Land that is located partially within a wetland or its buffer may be subdivided provided that an accessible and contiguous portion of each new lot is:

1. Located outside of the wetland and its buffer; and
2. Meets the minimum lot size requirements of [locally adopted zoning dimensions].

C. Access roads and utilities serving the proposed subdivision may be permitted within the wetland and associated buffers only if the [city/county] determines that no other feasible alternative exists, consistent with this Title.

Signs and Fencing of Wetlands

A. **Temporary Markers.** The outer perimeter of the wetland buffer and the clearing limits identified by an approved permit or authorization shall be marked in the field with temporary “clearing limits” fencing in such a way as to ensure that no unauthorized intrusion will occur. The marking is subject to inspection by the [director] prior to the commencement of permitted activities. This temporary marking shall be maintained throughout construction and shall not be removed until permanent signs, if required, are in place.

B. **Permanent Signs.** As a condition of any permit or authorization issued pursuant to this Title, the [director] may require the applicant to install permanent signs along the boundary of a wetland or buffer.

1. Permanent signs shall be made of an enamel-coated metal face and attached to a metal post, or another non-treated material of equal durability. Signs must be posted at an interval of one (1) per lot or every fifty (50) feet, whichever is less, and must be maintained by the property owner in perpetuity. The sign shall be worded as follows or with alternative language approved by the director:

Protected Wetland Area
Do Not Disturb
Contact [Local Jurisdiction]
Regarding Uses, Restrictions, and Opportunities for Stewardship

2. The provisions of Subsection (1) may be modified as necessary to assure protection of sensitive features or wildlife.

C. Fencing

1. The [director] shall determine if fencing is necessary to protect the functions and values of the critical area. If found to be necessary, the [director] shall condition any permit or authorization issued pursuant to this Title to require the applicant to install a permanent fence at the edge

of the wetland buffer, when fencing will prevent future impacts to the wetland.

2. The applicant shall be required to install a permanent fence around the wetland or buffer when domestic grazing animals are present or may be introduced on site.
3. Fencing installed as part of a proposed activity or as required in this Subsection shall be designed so as to not interfere with species migration, including fish runs, and shall be constructed in a manner that minimizes impacts to the wetland and associated habitat.

Wetland Buffers

- A. **Buffer Requirements.** [insert buffer requirements; see shaded box below]

See Appendices 8-C and 8-D for recommended buffer widths and criteria for increasing, reducing and averaging buffers to be used with the *Washington State Wetlands Rating System*. Appendix 8-E provides the rationale for the recommended buffers.

B. **Measurement of Wetland Buffers.** All buffers shall be measured from the wetland boundary as surveyed in the field. The width of the wetland buffer shall be determined according to the wetland category and the proposed land use as identified in this Title. The buffer for a wetland created, restored, or enhanced as compensation for approved wetland alterations shall be the same as the buffer required for the category of the created, restored, or enhanced wetland. Only fully vegetated buffers will be considered. Lawns, walkways, driveways, and other mowed or paved areas will not be considered buffers.

C. **Buffers on Mitigation Sites.** All mitigation sites shall have buffers consistent with the buffer requirements of this Title and based on the expected category of the wetland once the mitigation actions are completed.

D. **Buffer Maintenance.** Except as otherwise specified or allowed in accordance with this Title, wetland buffers shall be retained in an undisturbed or enhanced condition. Removal of invasive non-native weeds is required for the duration of the mitigation bond.

E. **Impacts to Buffers.** See Section [#] titled *Compensatory Mitigation Requirements*.

The buffer mitigation section has not yet been developed.

F. If buffers for two contiguous critical areas overlap (such as buffers for a stream and a wetland), the wider buffer applies.

G. Buffer Uses. The following uses may be permitted within a wetland buffer in accordance with the review procedures of this Title, provided they are not prohibited by any other applicable law and they are conducted in a manner so as to minimize impacts to the buffer and adjacent wetland:

1. **Conservation and Restoration Activities.** Conservation or restoration activities aimed at protecting the soil, water, vegetation, or wildlife.
2. **Passive Recreation.** Passive recreation facilities designed and in accordance with an approved critical area report, including:
 - a. Walkways and trails, provided that those pathways that are generally parallel to the perimeter of the wetland shall be located in the outer twenty-five percent (25%) of the buffer area, and constructed with a pervious surface. Raised boardwalks utilizing non-treated pilings may be acceptable;
 - b. Wildlife viewing structures.
3. **Stormwater Management Facilities.** Stormwater management facilities, limited to stormwater dispersion outfalls and bioswales, may be allowed within the outer twenty-five percent (25%) of the buffer of Category III or IV wetlands only, provided that:
 - a. No other location is feasible; and
 - b. The location of such facilities will not degrade the functions or values of the wetland; and
 - c. Stormwater management facilities are not allowed in buffers of Category I or II wetlands.

Stormwater Management Impacts to Wetlands

A. Protection of Wetland Hydrology. Wetland hydrology shall be protected through the development process. Post-development wetland hydrology shall match pre-development wetland hydrology to the maximum extent feasible.

B. Construction of New Surface Water Conveyance Systems. Construction of new surface water conveyance systems in wetland buffers is allowed only if discharging at the wetland edge has less adverse impact upon the wetland or wetland buffer than if the surface water is discharged at the buffer edge and allowed to naturally drain through the buffer.

C. Stormwater Facilities on Roads Adjacent to Wetlands and their Buffers. Construction of new surface water flow control or surface water quality treatment facilities are only allowed in wetlands and buffers when such facilities are located in an

existing road right-of-way and conducted consistent with established road maintenance guidelines and best management practices.

D. Limits on Use of Wetlands for Stormwater Detention. Wetlands cannot be used for stormwater detention and treatment unless the project satisfies the guidance and criteria developed by the Puget Sound Wetlands and Stormwater Management Research Program (Azous and Horner, eds, 2001, *Wetlands and Urbanization: Implications for the Future*) and contained in Appendix I-D of the *Stormwater Management Manual for Western Washington* titled “Wetlands and Stormwater Management Guidelines.”

Please note: At this point we are not aware of wetland management guidelines that have been developed to address stormwater issues specific to eastern Washington.

Unauthorized Alterations and Enforcement

A. When a wetland or its buffer has been altered in violation of this Title, all ongoing development work shall stop and the critical area shall be restored. The [city/county] shall have the authority to issue a stop work order to cease all ongoing development work, and order restoration, rehabilitation, or replacement measures at the owner’s or other responsible party’s expense to compensate for violation of provisions of this Title.

B. Requirement for Restoration Plan. All development work shall remain stopped until a restoration plan is prepared and approved by [city/county]. Such a plan shall be prepared by a qualified professional using the currently accepted scientific principles and shall describe how the actions proposed meet the minimum requirements described in Subsection (C). The [director] shall, at the violator’s expense, seek expert advice in determining the adequacy of the plan. Inadequate plans shall be returned to the applicant or violator for revision and resubmittal.

C. Minimum Performance Standards for Restoration. The following minimum performance standards shall be met for the restoration of a wetland, provided that if the violator can demonstrate that greater functions and habitat values can be obtained, these standards may be modified:

1. The historic structural and functional values shall be restored, including water quality and habitat functions;
2. The historic soil types and configuration shall be replicated;
3. The wetland and buffers shall be replanted with native vegetation that replicates the vegetation historically found on the site in species types, sizes, and densities. The historic functions and values should be replicated at the location of the alteration; and

4. Information demonstrating compliance with other applicable provisions of this Title shall be submitted to the [director].

D. Site Investigations. The [director] is authorized to make site inspections and take such actions as are necessary to enforce this Title. The [director] shall present proper credentials and make a reasonable effort to contact any property owner before entering onto private property.

E. Penalties. Any person, party, firm, corporation, or other legal entity convicted of violating any of the provisions of this Title shall be guilty of a misdemeanor. Each day or portion of a day during which a violation of this Title is committed or continued shall constitute a separate offense. Any development carried out contrary to the provisions of this Title shall constitute a public nuisance and may be enjoined as provided by the statutes of the State of Washington. The [city/county] may levy civil penalties against any person, party, firm, corporation, or other legal entity for violation of any of the provisions of this Title. The civil penalty shall be assessed at a maximum rate of [amount] dollars per day per violation.

